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Chronicle Preview: Next Fall's Flood of New Students—Page 3

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News Summary

Articles on inside pages

Employers plan to hire 8 per cent more graduates this year than last, a drop in their original estimates. Story on Page 2.

Institutions will have to meet more stringent standards in the future to win accreditation of their accounting programs. Story on Page 6.

Guidelines designed to help registered nurses earn baccalaureate degrees have been endorsed by the American Nurses' Association. Story on Page 6.

Education officials and state leaders differ over who should have prime responsibility for determining higher-education policy in the next two decades. Story on Page 7.

Louisiana has offered to compromise with the federal government over desegregation of the state's public colleges and universities. Story on Page 8.

Universities must find new ways to finance the expensive laboratory equipment they need, says a national commission. Story on Page 8.

Supporters of standardized admissions exams want Congress to study the impact of a New York State "truth-in-testing" law before they act. Story on Page 9.

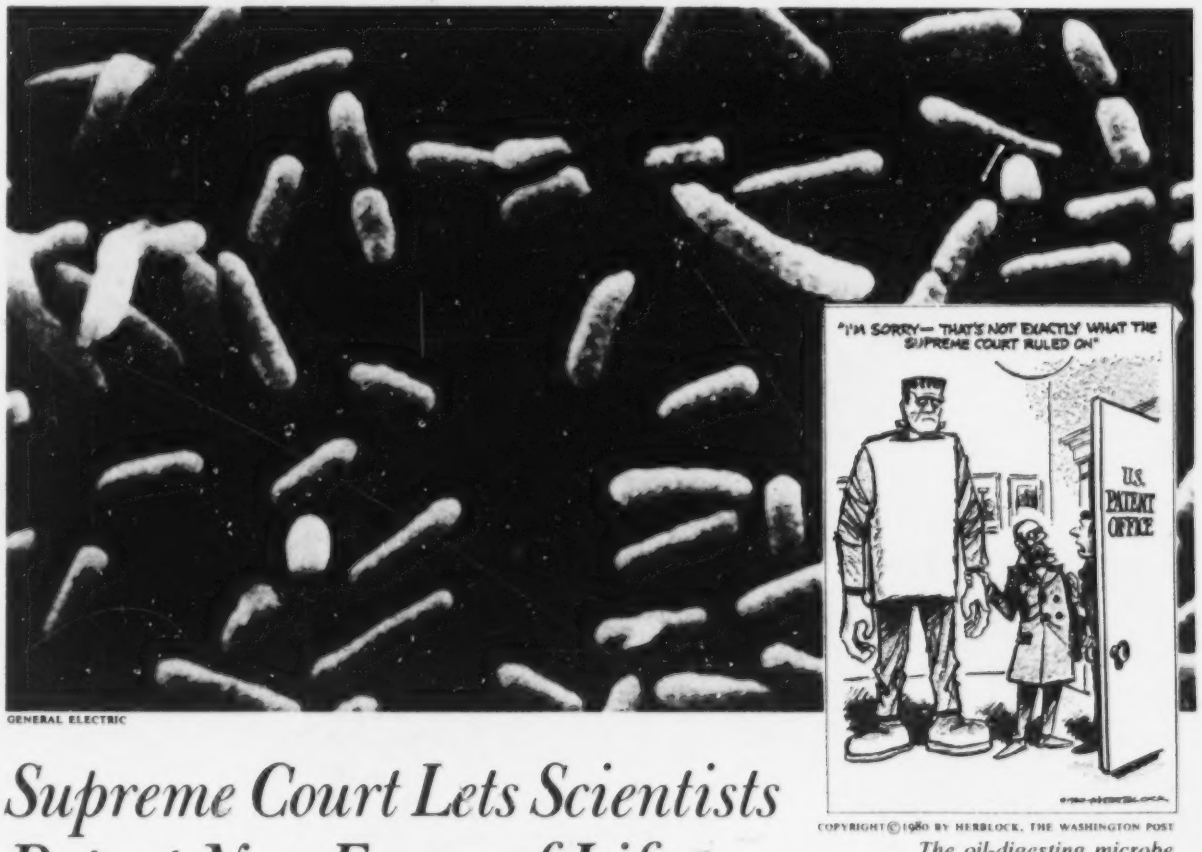
Student activists are planning campaigns opposing the resumption of draft registration. Story on Page 9.

The Senate may begin work on an omnibus higher-education bill this week, amidst continued debate over changes in the Guaranteed Student Loan program. Story on Page 12.

Universities in industrialized nations are under growing pressure to favor applied, rather than basic, research. Story on Page 13.

ALSO IN THIS ISSUE

Books	15
Bulletin Board	20-47
Calendar	18
Deadlines	18
Deaths	19
Gazette	19
Grants	17-18
International News	13
Letters	14
Marginalia	2
News in Brief	2
Point of View	48
Preview	3
Washington News	9-12



GENERAL ELECTRIC

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The oil-digesting microbe that the Supreme Court ruled could be patented, magnified 28,000 times. Inset: a noted cartoonist's reaction to the decision.

Supreme Court Lets Scientists Patent New Forms of Life

Ruling expected to spur research on man-made organisms

By Cheryl M. Fields

WASHINGTON

The Supreme Court ruled last week that man-made bacteria can be patented. The decision is expected to spur commercial development of organisms and biological substances produced in genetic laboratories.

Dividing 5 to 4, the Court held that new microorganisms created by scientists fell within the scope of laws allowing patents to be issued for any new and useful "manufacture" or "composition of matter." The Court emphasized that its ruling was based on narrow legal grounds.

The case arose when Ananda M. Chakrabarty, a microbiologist with the General Electric Company, sought to patent a strain of bacteria he had developed that can break down several components of crude oil and thus help clean up oil spills. The new microorganisms were evolved, using genetic manipulations, from a form of bacteria that occurs in nature.

"The laws of nature, physical phenomena, and abstract ideas have been held not patentable," said the majority decision written by Chief Justice Warren E. Burger. But Mr. Chakrabarty's claim was not "to a hitherto unknown natural phenomenon, but to a nonnaturally occurring manufacture or composition of matter—a product of human ingenuity."

Mr. Chakrabarty, who is now a professor of microbiology at the University of Illinois Medical Center in Chicago, said last week in an interview that the fact that laboratory-created forms of life had been held to be patentable should lead to more open communication between researchers in industry and academe. "Traditionally, the pharmaceutical industry and the biomedical industry have been very secretive about microorganisms. The reason for that is they couldn't patent their work, so they tried to protect it by hiding it," he said.

In addition, Mr. Chakrabarty said, the decision "will lead to a tremendous boost in both industrial and academic research." Industry will be more willing to invest in such research when it has patent protection, he said, and "this in turn will lead to a lot more marketable products."

A spokesman for Genentech Inc., a San Francisco company formed by former university researchers to exploit the possibilities of gene-splicing techniques, said the Supreme Court's action had "assured this country's technological future."

One of the first results of the Court's ruling is expected to be action by patent examiners on more than 100 applications filed by other university and commercial researchers seeking patents on laboratory-created organisms and substances derived from them.

For example, researchers have manipulated the genetic composition of organisms in ways that already have allowed them to produce such things as insulin, human growth hormone, and interferon, a virus-fighting substance that some scientists think may aid in treating cancer. Other applications of genetic engineering are expected in agriculture, food processing, and the chemical and energy industries.

Critics of the ruling fear that it could make commercial exploitation of revolutionary genetic research too easy. "It will

Continued on Page 11, Column 2

Donald Kennedy Picked as Stanford President

STANFORD, CAL.

Donald Kennedy, provost of Stanford University and former commissioner of the Food and Drug Administration, has been chosen to succeed Richard W. Lyman as Stanford's president.

Mr. Lyman, who announced his resignation last winter, will become president of the Rockefeller Foundation August 1.

Mr. Kennedy, who earned his undergraduate and graduate degrees at Harvard University, taught biology at Stanford for 20 years before joining the Food and Drug Administration in 1977. He returned as provost in 1979.

1980 Shaping Up as Another Bumper Year for Freshman Applicants at 4 Colleges in 5

By Jack Magarrell

For most of the country's colleges and universities, there is no shortage of new students for the coming year.

As of June 1, applicants for admission to next fall's freshman classes at four out of five institutions were at least as numerous as they were on the same date last year, according to the new "Chronicle Preview" survey being introduced in this issue.

Last year's applications produced a bumper crop of new students—a 12-month increase of nearly 5 per cent. That jump was not surprising, in view of the U. S. Census Bureau's estimate that the number of 18-year-olds in the population had reached its peak in 1979.

This year, however, with the estimated number of 18-year-olds starting its well-advertised decline, applications for college admission might have been expected to slacken.

But only 14 per cent of the nation's private institutions and 23 per cent of its public institutions have received fewer applications than they had last year, according to data gathered by telephone from a representative sample of public and private institutions.

Among private institutions, the decline in applications is concentrated in smaller colleges. Those with enrollments of under 1,000 account for more than half of the institutions reporting a decrease.

The pattern among public institutions is just the reverse: The larger universities are more likely to experience a drop in applications. About 38 per cent of the public institutions with enrollments above 20,000 report a decline, compared with about 18 per cent for those with enrollments of fewer than 10,000.

The survey of admissions applications was conducted for *The Chronicle* by John Minter Associates, a higher-education research organization in Boulder, Colo. Data on applications received by June 1, 1980, compared with those on the same date a year ago, were gathered from admissions officers of 150 institutions in a random sample of four-year colleges and universities with enrollments of 500 or more.

Paid Deposits Also Rise

For a further indication of enrollment trends to be expected this fall, *The Chronicle* survey also collected data on the number of paid deposits received from freshman applicants by June 1.

Among private institutions providing such data, more than half reported an increase in deposits, compared with a year earlier, and one-sixth reported a decrease.

Although deposits are less commonly required among public colleges and universities, nearly half of those that do ask prospective freshmen to make such payments reported an increase over last year, while about one-fourth reported a decrease.

Survey data on applications received show nearly 60 per cent of the private institutions have increases over last year. Among those with increases, half reported applications were up 8 per cent or more.

Among the private institutions experiencing decreases in applications received, half reported declines of at least 6 per cent.

Among public institutions, 48.6 per cent said they had more applications this year than last, and half of those with increases reported gains of 7 per cent or more. Among public institutions with fewer applications, the median decline is 4 per cent.

Gains in applications were reported by 81 per cent of the surveyed institutions in the Southeast—a higher percentage of institutions than in any other region. The biggest increases generally are in the West and Southwest, where half of the institutions reporting any increase at all said they had at least 15 per cent more applications than they had last year.

Record Enrollment Is Possible

If actual enrollment this fall follows the trends indicated in applications and deposits received, the total number of students on American campuses could reach another record high.

Last fall, overall enrollment totaled 11.7 million, an increase of 2.8 per cent over the year before. The number of new freshmen last year rose 2.5 per cent at private four-year colleges and universities and 3.1 per cent at public four-year colleges and universities.

Variations in applications do not always bring corresponding changes in actual enrollment.

Although a number of admissions officers attributed an increase in applications to greater recruiting efforts, one institution reported that after hiring a recruiting firm last year it had received a large increase in applications but not a large increase in enrollment.

Decreases in applications generally were attributed to population trends, but at one institution the decline was blamed in part on a new requirement that each applicant submit an essay along with the usual application form.

In addition to the general pattern shown by *The Chronicle* survey, unusually large increases have been announced by a number of institutions this spring. A few examples:

▶ Rochester Institute of Technology reported an increase of 36 per cent in applications for admission. Applications for the institute's college of science were up 75 per cent and for the college of business, up 46 per cent.

▶ At Duke University, admissions officials were working overtime to process a record number of applications. Duke, which expects to admit 1,450 freshmen in the fall, had nearly 10,000 applications by early March.

▶ Brown University reported it had nearly 12,000 applications for a freshman class of 1,275, an increase of 4.8 per cent over last year's total.

▶ Union College in New York stopped accepting applications in early March after 3,360 applications, more than it had ever received and an increase of 12 per cent over the previous year's total.

▶ Illinois State University halted the admission of new freshmen May 2, the first such cutoff there in eight years.

▶ East Carolina University, with 6,000 freshman applications on hand May 5, put all later applicants on a waiting list.

CHRONICLE PREVIEW

Changes in Number of Freshman Applicants

(June 1, 1980, compared with June 1, 1979)

	Number in sample	Increase	Decrease	No change	Median Increase[1]	Median Decrease[2]
Private colleges and universities						
Research and Ph.D.-granting	6	66.7%	0.0%	33.3%	11.0%	0.0%
Comprehensive	26	61.5%	11.5%	26.9%	5.5%	7.0%
Liberal arts	45	57.8%	17.8%	24.4%	9.5%	6.0%
Regions						
Northeast and Mid-Atlantic	25	60.0%	16.0%	24.0%	7.0%	4.5%
Great Lakes and Plains	20	35.0%	15.0%	50.0%	10.0%	12.0%
Southeast	16	81.3%	12.5%	6.3%	5.0%	10.5%
West and Southwest	16	68.8%	12.5%	18.8%	15.0%	6.0%
Enrollment						
500 — 999	24	66.7%	25.0%	8.3%	8.0%	6.0%
1,000 — 2,499	35	54.3%	14.3%	31.4%	10.0%	7.0%
2,500 — 4,999	9	66.7%	0.0%	33.3%	6.0%	0.0%
5,000 and over	9	55.6%	0.0%	44.4%	8.0%	0.0%
All private institutions	**77**	**59.7%**	**14.3%**	**26.0%**	**8.0%**	**6.0%**
Public colleges and universities						
Research and Ph.D.-granting	20	50.0%	25.0%	25.0%	5.5%	4.0%
Comprehensive	49	49.0%	24.5%	26.5%	8.0%	4.5%
Liberal arts	3	33.3%	0.0%	66.7%	10.0%	0.0%
Regions						
Northeast and Mid-Atlantic	16	37.5%	31.3%	31.3%	8.0%	6.0%
Great Lakes and Plains	12	50.0%	25.0%	25.0%	3.0%	3.0%
Southeast	25	60.0%	12.0%	28.0%	9.0%	2.0%
West and Southwest	19	42.1%	31.6%	26.3%	8.5%	4.5%
Enrollment						
500 — 2,499	9	33.3%	11.1%	55.6%	12.0%	3.0%
2,500 — 4,999	16	43.8%	18.8%	37.5%	13.0%	6.0%
5,000 — 9,999	22	63.6%	18.2%	18.2%	6.0%	3.0%
10,000 — 19,999	12	58.3%	33.3%	8.3%	6.0%	5.0%
20,000 and over	13	30.8%	38.5%	30.8%	5.5%	4.0%
All public institutions	**72**	**48.6%**	**23.6%**	**27.8%**	**7.0%**	**4.0%**

Changes in Number of Paid Deposits

(June 1, 1980, compared with June 1, 1979)

	Number in sample	Increase	Decrease	No change	Median Increase[1]	Median Decrease[2]
Private colleges and universities						
Research and Ph.D.-granting	5	40.0%	20.0%	40.0%	15.5%	5.0%
Comprehensive	21	52.4%	0.0%	47.6%	10.0%	0.0%
Liberal arts	40	52.5%	25.0%	22.5%	12.0%	5.0%
Regions						
Northeast and Mid-Atlantic	23	60.9%	13.0%	26.1%	13.0%	5.0%
Great Lakes and Plains	18	38.9%	11.1%	50.0%	15.0%	12.5%
Southeast	13	61.5%	23.1%	15.4%	10.0%	5.0%
West and Southwest	12	41.7%	25.0%	33.3%	15.0%	5.0%
Enrollment						
500 — 999	21	47.6%	38.1%	14.3%	13.5%	5.0%
1,000 — 2,499	30	56.7%	6.7%	36.7%	10.0%	8.5%
2,500 — 4,999	8	50.0%	0.0%	50.0%	21.5%	0.0%
5,000 and over	7	42.9%	14.3%	42.9%	10.0%	5.0%
All private institutions	**66**	**51.5%**	**16.7%**	**31.8%**	**12.0%**	**5.0%**
Public colleges and universities						
Research and Ph.D.-granting	9	44.4%	55.6%	0.0%	5.0%	5.0%
Comprehensive	21	52.4%	19.0%	28.6%	8.0%	3.0%
Liberal arts	3	33.3%	0.0%	66.7%	5.0%	0.0%
Regions						
Northeast and Mid-Atlantic	14	42.9%	28.6%	28.6%	5.0%	3.5%
Great Lakes and Plains	5	40.0%	20.0%	40.0%	3.5%	5.0%
Southeast	8	50.0%	25.0%	25.0%	12.0%	2.0%
West and Southwest	6	66.7%	33.3%	0.0%	7.5%	9.5%
Enrollment						
500 — 2,499	7	42.9%	0.0%	57.1%	8.0%	0.0%
2,500 — 4,999	7	57.1%	28.6%	14.3%	7.0%	2.0%
5,000 — 9,999	10	60.0%	20.0%	20.0%	6.5%	6.0%
10,000 — 19,999	5	40.0%	40.0%	20.0%	5.5%	9.0%
20,000 and over	4	25.0%	75.0%	0.0%	6.0%	5.0%
All public institutions	**33**	**48.5%**	**27.3%**	**24.2%**	**6.0%**	**4.0%**

[1] For those institutions reporting an increase.
[2] For those institutions reporting a decrease.

SOURCE: SURVEY FOR THE CHRONICLE BY JOHN MINTER ASSOCIATES

NOTE

ONLY THE FOLLOWING PAGES OF THIS PUBLICATION

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p. 1, 3, 7.

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